LIPPERT COMPONENTS

AMENDED
SAFETY RECALL 15E-029
STOP SALE NOTICE

To our Customers:

This notice is provided to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act to amend the prior Safety Recall - Stop Sale Notice.

On or about April 20, 2015, Lippert Components, Inc. ("LCI"), sent you via e-mail and overnight delivery a Safety Recall - Stop Sale Notice regarding a defect which related to certain 12" and 10" brake hubs manufactured by TRP International, Inc. identified as Tru Ryde and incorporated into LCI axles from Plant 45 in Indiana and Plant 57 in Idaho and sold to final stage manufacturers ("OEMs").

LCI has conducted a thorough analysis of the data compiled including, without limitation, the volume of axles produced, the reported stud fractures (all of which occurred during the installation of the wheels on the hubs at the OEMs' facilities or upon inspection during the field investigation), the field investigation, and LCI and independent lab testing of the studs. Based on the analysis there are 2261 axles produced in Indiana and 2316 axles produced in Idaho which are being recalled. This determination was made final on May 12, 2015.

LCI will be filing an amended 573 Notice with NHTSA to address the redefined scope of axles being recalled. We are giving you notice of this because your company received shipment(s) of axles possibly containing the brake hub assemblies that are within the axle recall population. The details of these shipments are included with this Amended Notice in a separate spreadsheet of all axle serial numbers within the recall population that were sold to your company. You may have an independent obligation to notify NHTSA under 49 CFR 573 and we encourage you to consult with your legal advisors.

If the axle serial numbers, which LCI provided in the included spreadsheet, are still in your inventory, you must not sell to a retail customer or install these assemblies. It is a violation of federal law to sell any of the assemblies covered by this recall to retail customers. Neither the axle nor the recreational vehicle or trailer containing such axle may be sold. Included with this notice is the Trailer Axle Hub Stud Breakage Identification which directs you on how to identify the affected axle and to the separate replacement instructions.

You will be receiving another letter from LCI that will provide further details about this recall and how it will be administered. In the meantime, should you have any questions, please contact Pamela VanderMel at 574-312-6040 or pamelav@lci1.com.

Sincerely,

Lippert Components, Inc.

Chronology of Defect/Noncompliance Determination for Amended 573 Notice

On March 25, 2015 a customer contacted LCI regarding a broken stud on three consecutive units on the production line. The location of the breakage was different than what LCI would typically see on a cross thread or lug nut issue and all three were on a TRP supplied hub and drum assembly. On March 26, 2015 LCI received notification of three additional studs breaking and it was decided to place all product from LCI's Indiana plant on hold that had the code SZ141223 thru SZ141228 on the TRP assemblies until further testing could be completed. After initial testing it was decided on March 27, 2015 that the studs in the TRP hub and drum assemblies may be defective. LCI submitted its 573 Notice to NHTSA on April 3, 2015 recalling 5000 axles manufactured between March 12 and March 26, 2015 that had TRP hub and drum assemblies.

On April 6, 2015 LCI received notification of a broken stud during the customer's assembly process that was manufactured from LCI's Idaho facility. LCI began investigating the hub and drum assemblies used for axle production at the Idaho facility. LCI was notified of additional stud fractures on April 7, 22, 23, 27 and May 4 for axles produced at Indiana's facility using TRP and Axle Teknology hub and drum assemblies. LCI was also notified on April 28 and 30 regarding additional stud fractures for axles using TRP hub and drum assemblies produced at Idaho's facility.

All of the manufacturing data and reported stud fractures was gathered and analyzed. There have been no known stud factures that have occurred on units in the field and there are no reported injuries, property damage incidents or crashes associated with a stud fracture from the affected recall population. All documented known stud fractures occurred during the installation of the wheels on the hubs or during LCI's field investigation following the filing of the initial 573 Notice and involved B-blank studs. Total of 25 B-blank stud fractures reported for the Indiana facility out of a population of 890,000 studs. The dates of manufacture of the affected Indiana axles was March 13 and 17 for TRP hub and drum assemblies and April 10, 13, 14 and 15 for Axle Teknology hub and drum assemblies. Total of 18 B-blank stud fractures for the Idaho facility out of a population of 155,000 studs. The dates of manufacture of the affected Idaho axles was March 20, 23, 24, 25, 26, 27, 30 and April 1, 2, 3, 6 and 7 for TRP hub and drum assemblies.

During the course of the investigation it was discovered that both TRP and Axle Teknology were incorporating B-blank studs from the same supplier that were potentially defective. All B-blank stud fractures were reported within 15 working days of the date of manufacture of the axles. Independent lab results of the B-blank studs show the fracture mode to be a brittle condition that would fail during a normal torque process at installation. LCI also tested internally and by an independent lab additional non B-blank studs for use in the hub and drum assemblies.

On May 12, 2015, LCI decided to expand the 15E-029 recall population to include the additional hub and drum assemblies from the affected Indiana and Idaho production runs.

safercar.gov

Lippert Components, Inc.

Equipment Report

NHTSA ID: 15E029 Transaction ID: 15-001523-16441-11 (Amendment 1)

Required fields indicated with *

Manufacturer: Lippert Components, Inc.

Attn: Shawn Lewis
Elkhart IN 46515

Pamela VanderMel Warranty Manager
574-312-6040,

This is a Safety Defect Report.

Equipment Information

Axles Hub 122093

* **Brand/Trade:** Axles
* **Model:** Hub

Production Dates Begin: 03/12/2015
End: 03/26/2015

* **Part No.:** 122093
Size:

Function:
Axle

Descriptive Information:
12 x 2 Brake Hub

Axles Hub 122093,122096,126003

* **Brand/Trade:** Axles
* **Model:** Hub

Production Dates Begin: 03/13/2015
End: 04/15/2015

* **Part No.:** 122093,122096,126003
Size: 12x2, 10 x 2 1/4

Function:
Axle

Descriptive Information:
12 x 2 Brake Hub and 10 x 2 1/4 Brake hub

Number potentially involved: 9154 **Estimated percentage of involved with defect:** 1%

Defect / Noncompliance Description

For this Defect/Noncompliance:

* **Describe the defect or noncompliance:**
Broken wheel stud at in-process torque station not representative of improper torque process but rather a suspect process condition due to the location of the failure on the wheel bolt. The stud breakage was under the serrations located on the top of the threads.

If a noncompliance, provide the applicable FMVSS:

Describe the cause:
Cause is embrittlement due to "Tempered Martensitic Embrittlement".

* **Describe the safety risk:**
All failures have occurred at in-process torque or at PDI torque process station at the OEM. There have been no field failures.

Identify any warning which can precede or occur:
No warning until final torque is placed on nut.

This Recall affects all vehicles.

If applicable, identify the manufacturer of the defective or noncompliant component. If the manufacturer of the component is unknown, provide the information for the company that supplied the subject component.

Component manufacturer

Company Information

Company Name: TRP International, Inc.
Country: United States
Address 1: 21840 Protecta Drive
Address 2:
City: Elkhart
State: INDIANA

Company Contact Information

First Name: Fred
Last Name: Buckingham
Position: Engineering & Quality Manager
Email: FBuckingham@trpintl.com
Phone: 5749701680

Zip/Postal Code: 46514

Purchaser Information

Chronology of Defect / Noncompliance Determination

Provide the chronology of events leading up to the defect decision or test data for the noncompliance decision.:
Please see attached document listing Chronology.

Identify the Remedy

Describe the defect/noncompliance remedy program, including the manufacturer's plan for reimbursement.
Lippert Components will replace the hub with a new hub which was built from studs supplied by a different manufacturer. Lippert Components will reimburse OEM's for hub changes occurring in the field by dealers.

Describe what distinguishes the remedy component from the recalled component.
Placed all hub and drums on hold within the Lippert facility until testing could be completed. If shipment was needed the product was replaced with a different supplier. This issue has not been located in any other supplier's product or past production runs. Testing is under way in our R & D facility. A fixture was designed to try to repeat the breakage within a controlled environment. Testing is ongoing.

Identify and describe how and when the recall condition was corrected in production.
All hub and drum assemblies from TRP for Indiana and Idaho and all hub and drum assemblies from Axle Teknology for Indiana that contained the suspect B-blank studs were placed on hold. The studs that fractured were all B-blank studs from the same factory. LCI cleared all hub and drum assemblies containing B-blank studs on April 22, 2015 at production facilities. Any assemblies posted prior to April 23, 2015 were placed on hold to verify they did not contain any B-blank studs.

Identify the Recall Schedule

Describe the recall schedule for notifications.:
Lippert started notifying its customers on March 27, 2015.

Planned Dealer Notification Begin Date:

Planned Dealer Notification End Date:

Planned Owner Notification Begin Date:

Planned Owner Notification End Date:

Manufacturer's identification code for this recall (if applicable): LCI-TRP-0315001

Please be reminded that owner notification letters must be mailed no more than 60 days from submission of this report.

Manufacturer Comments to NHTSA Staff

Regarding the field titled Production Dates, please note the date above is the earliest and most recent production dates involved, the entire range of dates are not included. The following production dates are being recalled specific to our production facility. Indiana Produced Product: 3/13/15, 3/17/15, 4/10/15, 4/13/15, 4/14/15 and 4/15/15. Idaho Produced Product: 3/20/15, 3/23/15, 3/24/15, 3/25/15, 3/26/15, 3/27/15, 3/30/15, 4/1/15, 4/2/15, 4/3/15, 4/6/15 and 4/7/15. Regarding field above titled "Estimated percentage of involved with defect". The above field would not allow us to enter the decimal, we wish to utilize this field to restate the % is .018%.

Document Upload

There are 0 documents associated with this report.

LIPPERT COMPONENTS

COMMONLY ASKED QUESTIONS & ANSWERS

REGARDING LCI'S 573 NOTICE FOR AXLES INCORPORATING

TRP INTERNATIONAL, INC. TRU RYDE HUBS

Q1: What is the suspected root cause of the known stud fractures?

A1: Third party testing is still ongoing but initial results indicate that the stud fractures were primarily caused by embrittlement due to a phenomenon called Tempered Martensite Embrittlement which happens when the steel is tempered or cooled slowly and was not due to a defect at the attachment point in the hub housing.

Q2: How many stud fractures have occurred?

A2: Based on current reported stud fractures as of April 16, 2015:

Indiana (Plant 45) 6 stud hub – 14 out of 7,560 studs or 0.185%
Idaho (Plant 57) 6 stud hub – 1 out of 29,184 studs or 0.0034%
Idaho (Plant 57) 5 stud hub – 37 out of 60,690 studs or 0.061%

The known stud fractures among the total suspect population have been infrequent and random. There have been no reported stud fractures in the field or any reported crash or injury involving a stud fracture from the suspect lots.

Q3: How were the stud fractures occurring?

A3: All known stud fractures occurred while torqueing of the lug nut on the stud during the assembly process at the OEM facilities or during the subsequent field inspection and replacement process by LCI.

Q4: How are the potential defective studs being located?

A4: The scope of the affected stud lots have been identified and are all traceable.

Q5: What are the chances of a retail consumer having a unit affected by the recall?

A5: As a result of LCI's prompt field action, it is believed that most of the studs have been or will be contained at the OEM's facilities, the transport yards or dealer lots before they enter the retail market.

Q6: What are the risks to a retail consumer?

A6: In the unlikely event a stud fractures in the field and the remaining lug nuts are properly torqued, wheel retention on the vehicle should not be affected.

Q7: Given the lack of stud fractures in the field why did LCI initiate a recall?

A7: LCI's recall and field action was taken out of an abundance of caution to minimize the risk of motor vehicle safety to the general public and its customers.

Sincerely,

Lippert Components, Inc.

Trailer Axle Hub Stud Breakage Identification - Recall Number 15E-029

NOTE: This document affects trailer drums being supplied from Lippert Components, Inc.

Lippert has been notified of broken studs on certain drums supplied by, and installed on, LCI axle assemblies. If you are in receipt of this communication, you may be in possession of an affected unit. To confirm a suspected drum, first, reference the affected VIN listing provided by the Vehicle Manufacturer (attached). If the VIN is in the affected scope, follow the procedure outlined in the **Trailer Axle Hub Replacement Manual**. If the drum is determined to be affected, it **MUST** be replaced, see **Trailer Axle Hub Replacement Manual** for proper replacement procedure.

The affected drums **do not need to be returned**, but the repair facility will need to submit a clear photo of each axle tag with the axle serial number and manufactured date (also on the axle tag) (see Figs. 5 & 6) and a clear photo of the affected drum(s) (see Figs. 1-4) to include with their claim. All original drums **MUST** be destroyed and cannot be reused or sold.

Inspection Procedure

Step 1. Check the Axle Tag, Figs. 4 & 5, for the manufacture date. If the date falls on any of the following proceed to step 2:

INDIANA AXLE DATES - 2015: 3/13, 3/17, 4/10, 4/13, 4/14, 4/15

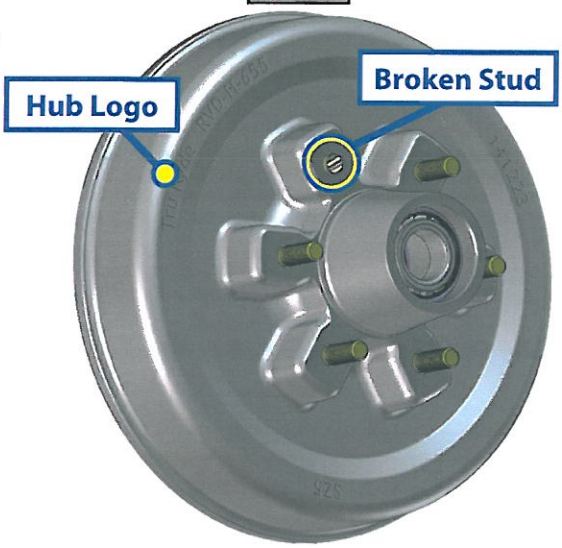
IDAHO AXLE DATES - 2015: 3/20, 3/23, 3/24, 3/25, 3/26, 3/27, 3/30, 4/1, 4/2, 4/3, 4/6, 4/7

NOTE: If the axle tag date is not listed above, no further repair is required, but it WILL be necessary to document the inspection to include the axle serial number and date listed on the axle tag.

Step 2. Inspect drum for Tru Ryde or Axle Tek logo:

- **A.** Safely jack up and support the unit according to the manufacturer's instructions.
- **B.** Remove lug nuts from wheels on the axle(s) to be inspected.
- **C.** Remove the wheel and check the drum face:

Fig. 1



FOR INDIANA ONLY

Axle Date of Manufacture	Drum Type	Replace?
3/13, 3/17	Tru Ryde Axle Tek LCI	Yes No No
4/10, 4/13, 4/14, 4/15	Tru Ryde Axle Tek LCI	No Yes No

FOR IDAHO ONLY

Axle Date of Manufacture	Drum Type	Replace?
3/20, 3/23, 3/24, 3/25, 3/26, 3/27, 3/30, 4/1, 4/2, 4/3, 4/6, 4/7	Tru Ryde Axle Tek LCI	Yes No No

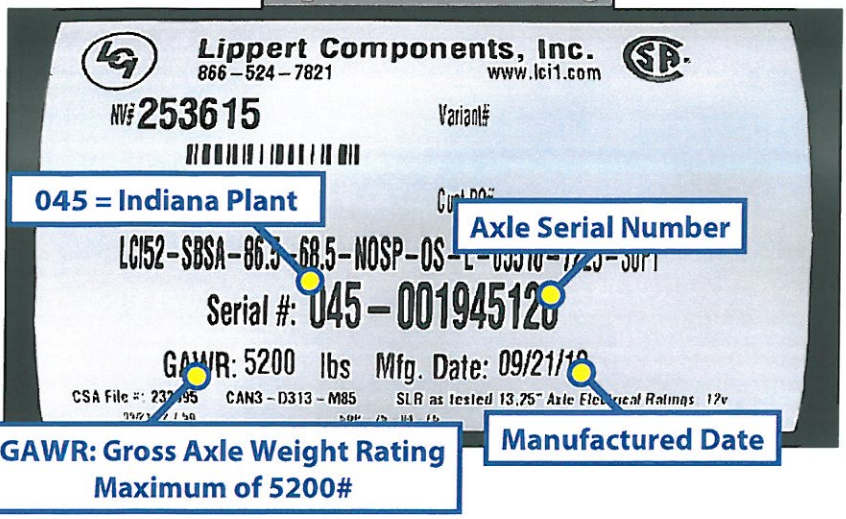
NOTE: If the DOM and Drum Type combination match those listed in the tables above, the drum(s) **MUST** be replaced. Kits can be ordered by contacting Lippert Components, Inc. directly or the units OEM, see Fig. 7 for the list of kits. See the **Trailer Axle Hub Replacement Instructions** on page 3. If the DOM and Drum Type do not match the chart listings, the drums do not need to be replaced.

Fig. 2 - Tru Ryde Drum

Fig. 3 - Axle Tek Drum

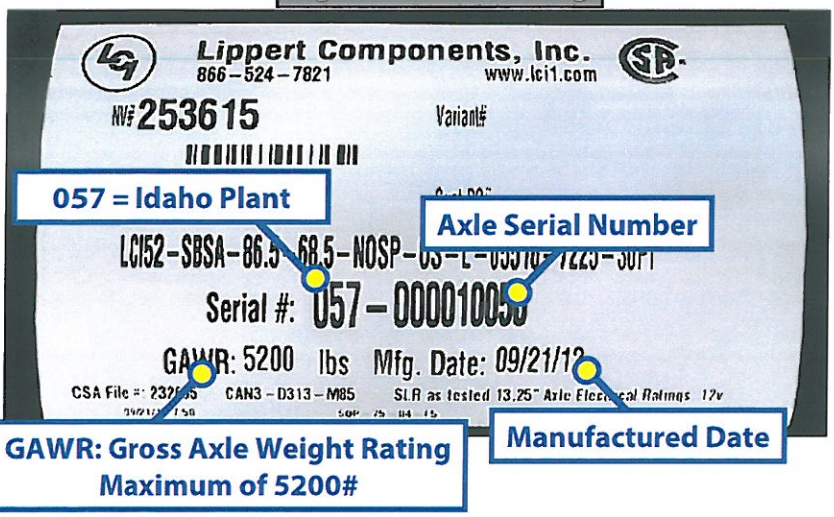
Fig. 4 - LCI Drum

Fig. 5 - Indiana Axle Tag



NOTE: The Axle Tag images are for reference only, see Figs. 5 & 6. The information on the pictured tags does not represent the axles included in this notification.

Fig. 6 - Idaho Axle Tag



NOTE: The Axle Tags demonstrate the plants from which the original axles in question were shipped, see Figs 5 & 6. Please take note of the first three numbers of the Serial Numbers on the Axle Tags to determine the plant of origin.

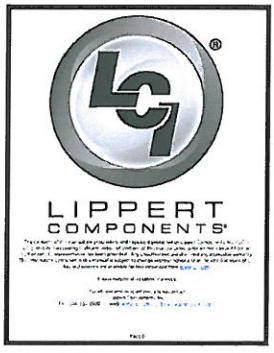
Fig. 7 - Drum Replacement Kits

NOTE: All Drum Replacement Kits are listed by LCI part number.

Kit - 378157 - GAWR: 5200 lb.
1. Hub - 12" - 6 Lug
2. Hub Replacement Manual
3. Cotter Pin

Kit - 378538 - GAWR: 3500 lb.
1. Hub - 10" - 5 Lug
2. Hub Replacement Manual
3. Cotter Pin

Kit - 378536 - GAWR: 7000 lb.
1. Hub - 12" - 8 Lug
2. Hub Replacement Manual
3. Cotter Pin



Trailer Axle Hub

REPLACEMENT MANUAL

TABLE OF CONTENTS

Safety Information

⚠WARNING

The "WARNING" symbol above is a sign that a service or maintenance procedure has a safety risk involved and may cause serious injury or death if not performed safely and within the parameters set forth in this manual.

Always wear eye protection when performing service or maintenance to the vehicle. Other safety equipment to consider would be hearing protection, gloves and possibly a full face shield, depending on the nature of the service.

The owner's manual for your unit may have more procedures for service and maintenance.

NOTE: The images shown in this manual are for illustrative purposes only and may not exactly match the components on the axle being serviced.

Hub Removal

1. Lift and support unit per manufacturer's requirements.

⚠WARNING

Lift unit by the frame and never the axle or suspension. Do not go under unit unless it is properly supported by jack stands. Unsupported units can fall causing death or serious injury.

2. Remove the lug nuts from the wheel and set aside (Fig. 1).
3. Remove the wheel from the axle hub and set aside (Fig. 2).

Fig. 1

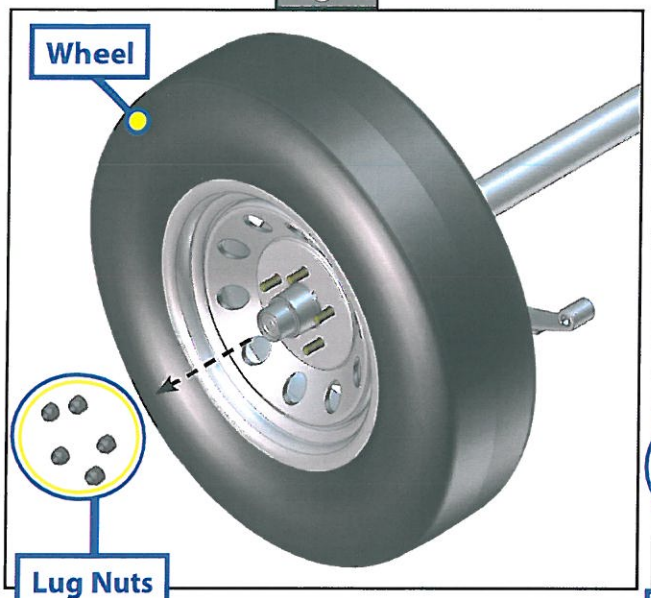
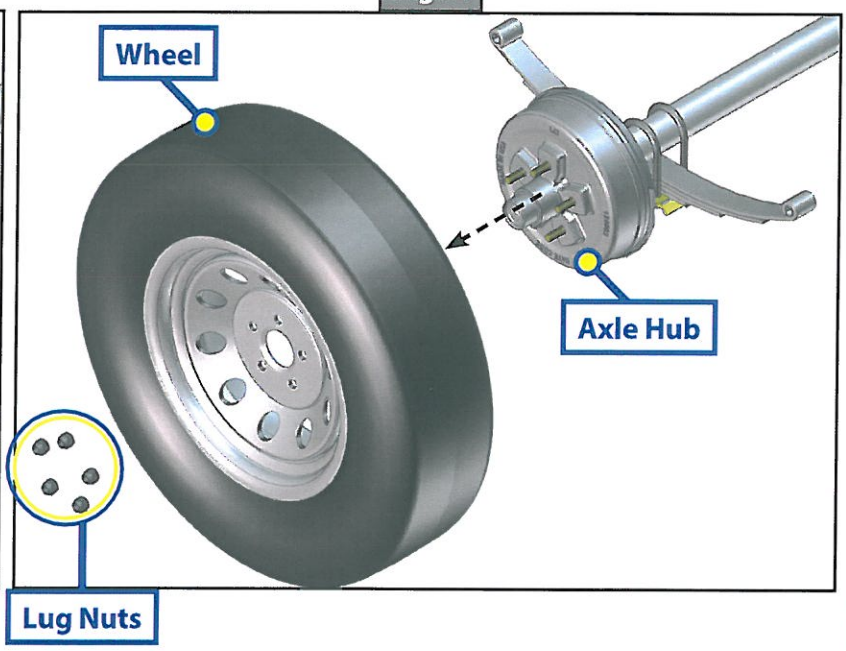


Fig. 2



4. Remove the dust cap by prying the edge out of the hub (Fig. 3). If equipped with oil lubrication, unscrew oil cap using a 2½" socket. Let oil drain into pan.
5. Pull the cotter pin from the castle nut and ***DISCARD THE COTTER PIN*** (Fig. 4).

Fig. 3

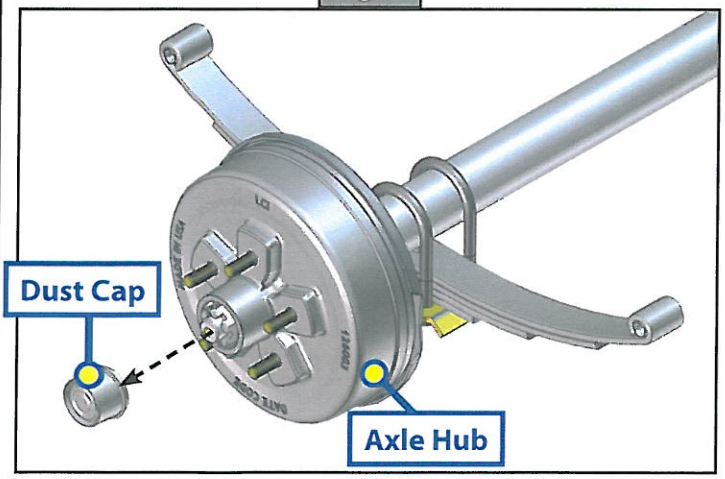
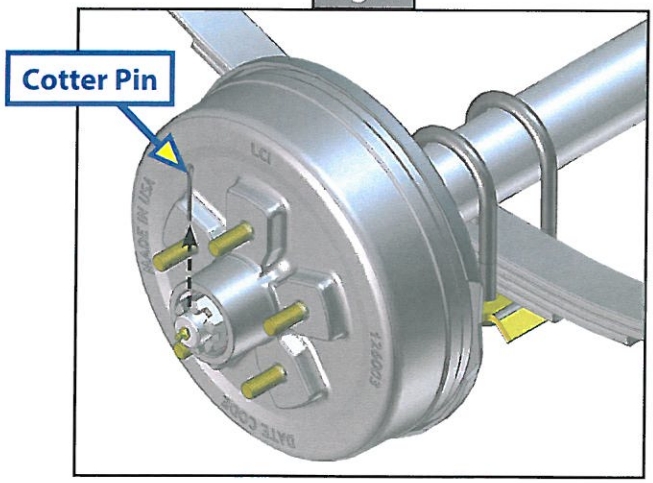


Fig. 4



6. Remove the castle nut from the spindle (Fig. 5).
7. Remove the spindle washer from the spindle (Fig. 6).
8. Place hand over nose of hub during removal to contain outer bearing cone or remove outer bearing cone prior to removal of hub. Remove the hub from the spindle (Fig. 7).

NOTE: Brakes may need to be adjusted or backed off to remove drum from spindle.

NOTE: A gear puller may be necessary to remove hub from spindle.

Fig. 5

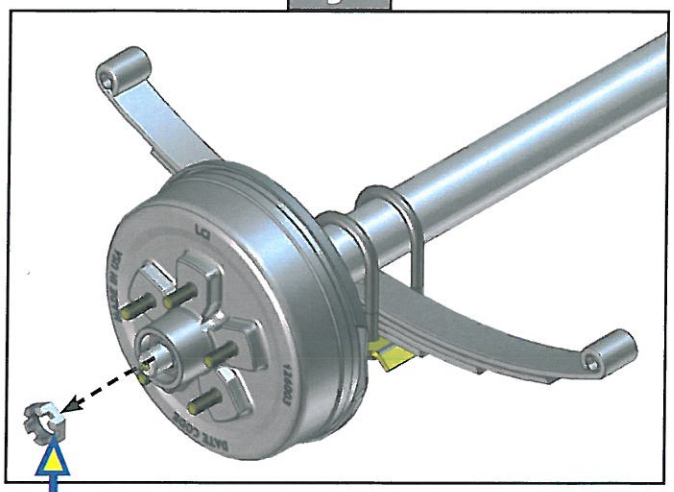


Fig. 6

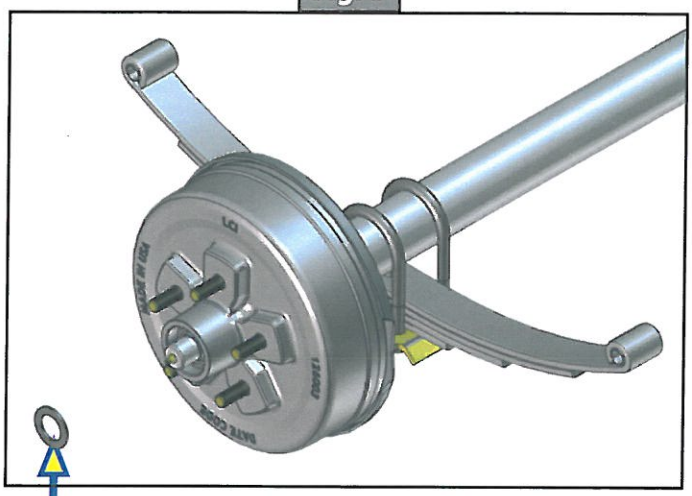
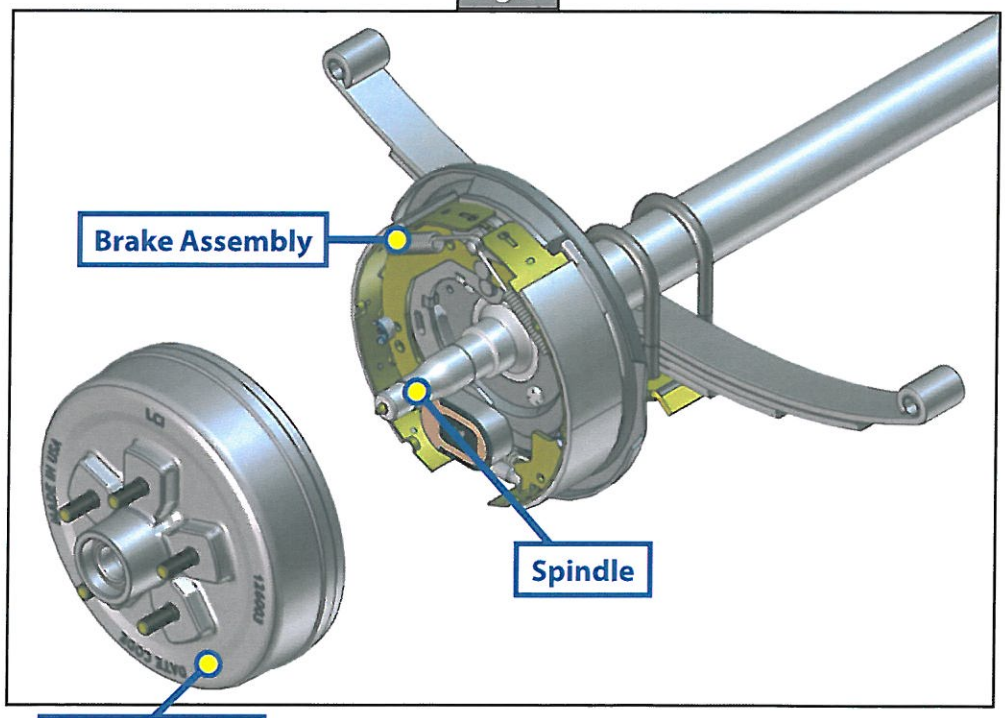


Fig. 7

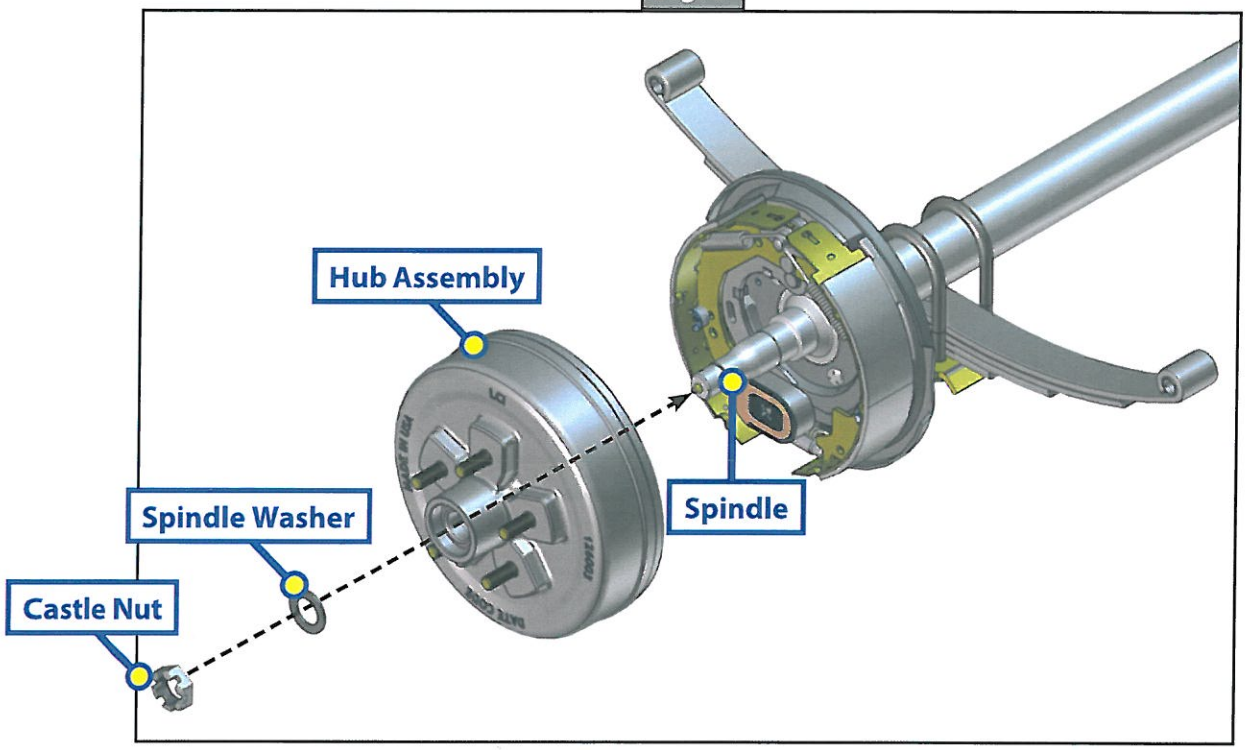


Hub Replacement

NOTE: Wipe all grease from spindle prior to hub install to prevent brake contamination after hub install.

1. Place new hub assembly onto the axle spindle followed by the spindle washer and castle nut (Fig. 8). Castle nut should be torqued to 50 ft.-lb. Rotate the hub during the tightening process.

Fig. 8



2. Loosen castle nut to back off the torque.
3. Tighten castle nut finger tight until snug.
4. Insert ***NEW*** cotter pin (Fig. 9). If cotter pin does not line up with hole, back castle nut up slightly until pin can be inserted.
5. Bend cotter pin over to lock nut in place (Fig. 10). Nut should be free to move with only the cotter pin keeping it in place.

Fig. 9

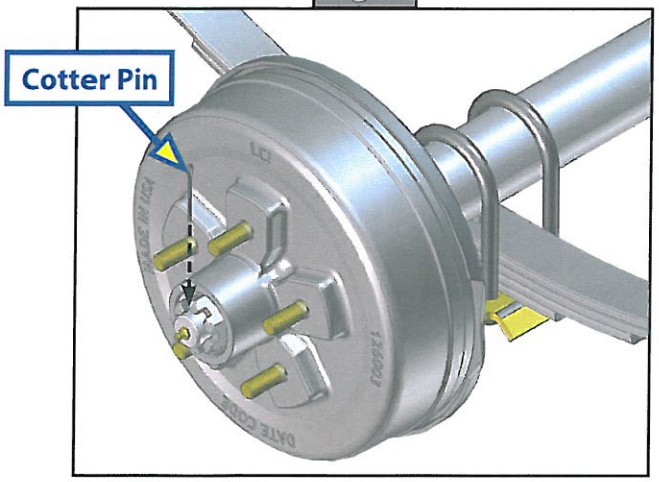
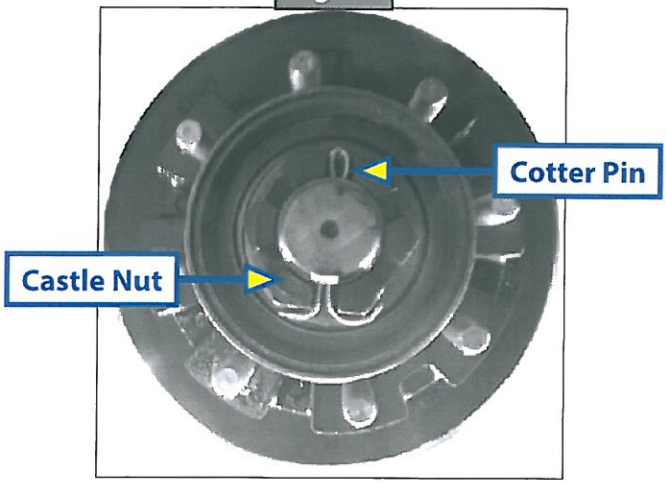


Fig. 10



6. Re-install dust cap into the hub assembly (Fig. 11).
7. Re-install the wheel onto the hub assembly (Fig. 12).
8. Re-install the lug nuts onto the hub studs (Fig. 13). See the torque requirements section on the next page.

Fig. 11

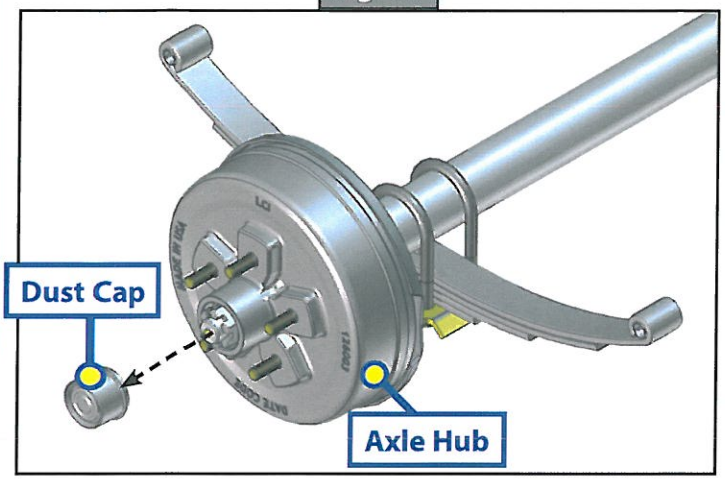


Fig. 12

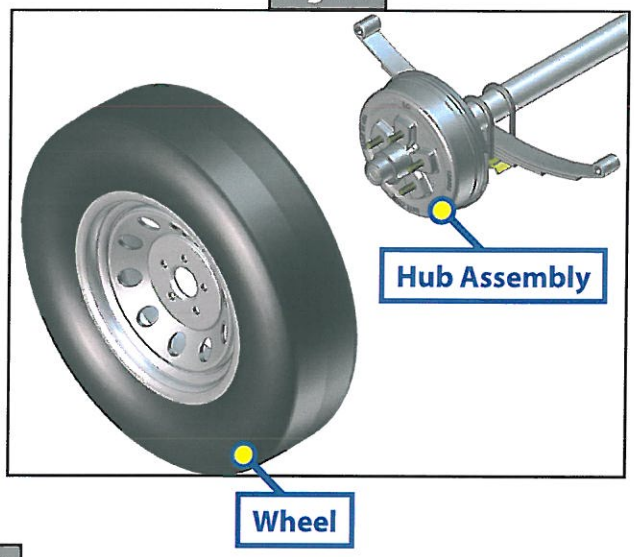
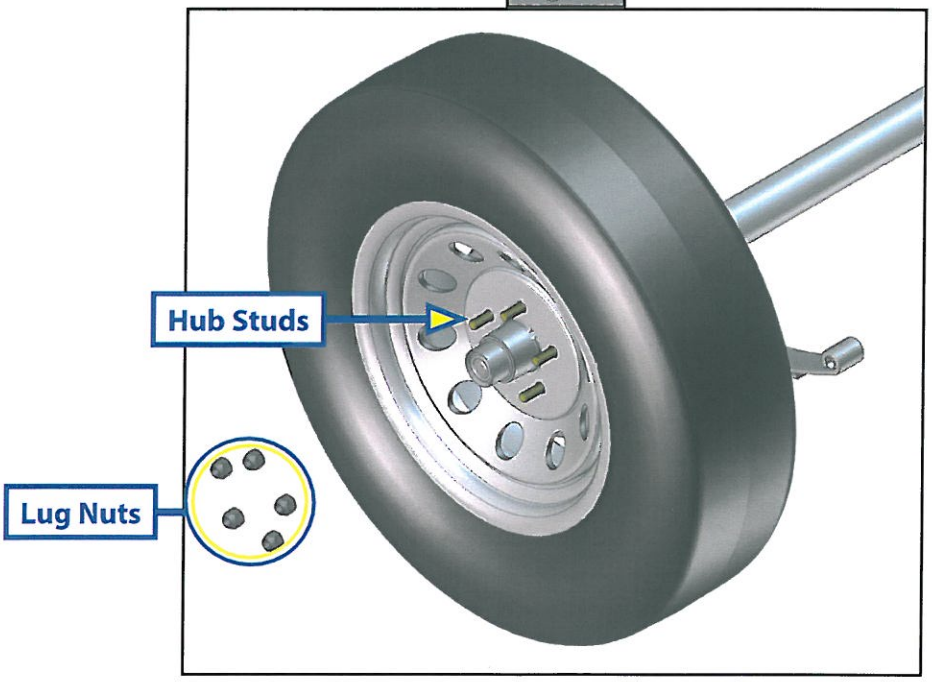


Fig. 13



Wheel Torque Requirements

It is extremely important to apply and maintain proper wheel mounting torque on your trailer axle. Torque wrenches assure the proper amount of torque is being applied to a fastener. Use no other method to torque fasteners.

⚠WARNING

Proper and accurate torque must be maintained to prevent wheels from loosening, studs from cracking and/ or breaking or other possible hazardous breakage resulting in death or serious injury.

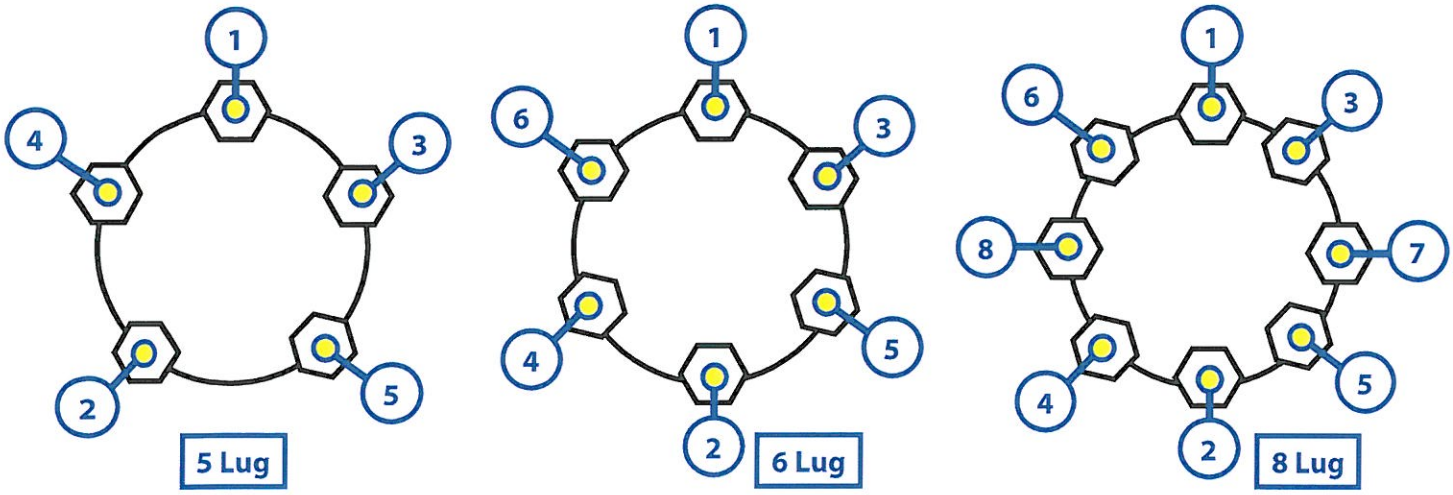
Be sure to use only the fasteners matched to the cone angle of your wheel (usually 60°or 90°). The proper procedure for attaching your wheels is as follows:

1. Start all bolts or nuts by hand to prevent cross threading.
2. Tighten bolts or nuts in the following sequence (see Wheel Torque Requirement Chart below, Fig. 14).
3. Tightening fasteners should be done in stages. Follow the recommended sequence (Fig. 15). Tighten fasteners per wheel torque requirements chart below.
4. Wheel nuts/bolts should be torqued before first road use and after each wheel removal. Check and re-torque after 10 and 25 miles and again at 50 miles. A periodic check during regular service is recommended.

Fig. 14

Wheel Torque Requirement Chart				
Wheel Size	Stud Size	Torque Sequence		
		1st Stage	2nd Stage	3rd Stage
14"	½"	20-25 ft-lbs	50-60 ft-lbs	90-120 ft-lbs
15"	½"	20-25 ft-lbs	50-60 ft-lbs	90-120 ft-lbs
16"	½"	20-25 ft-lbs	50-60 ft-lbs	90-120 ft-lbs
16.5" x 6.75"	½"	20-25 ft-lbs	50-60 ft-lbs	90-120 ft-lbs
16"	9/16"	20-25 ft-lbs	60-70 ft-lbs	120-130 ft-lbs
16.5" x 6.75"	9/16"	20-25 ft-lbs	60-70 ft-lbs	120-130 ft-lbs
16" Dual and 17.5" Cone Nut	⅝"	50-60 ft-lbs	100-120 ft-lbs	190-210 ft-lbs
16" Dual and 17.5" Flange Nut	⅝"	50-60 ft-lbs	150-200 ft-lbs	275-325 ft-lbs
14.5" Demount	⅝"	Tighten sequentially to 85-95 ft-lbs		

Fig. 15



LIPPERT COMPONENTS®

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Please recycle all obsolete materials.

For all concerns or questions, please contact
Lippert Components, Inc.
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